

Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID : CP-2018-03-19-04 Date: 22-03-2018
Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address : Shettyhalli Sub Division, BBMP, Bangalore.
Project Name : Construction of RCC drain in 19th, 12th Cross roads at Ravindra Nagara in Ward No.13, Shettyhalli Sub Division.
Agency : Smt.Jayamma.K No.74, Behind Grama Panchayiti office, Shanbhog Layout, Dasanapura, Bangalore-562123.
Customer's Reference : EE/DD/WO/293/17-18
Source of Sample : Sample supplied by Agency
Sample Condition : Satisfactory
Date of Receipt : 19-03-2018
Sample ID No : 2018-03-19-04 /01
Sample Type : Birla Super 53grade
Reference to BIS codes : IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification ,
IS 4031 (Part 1,2 3,4,5, 6,11):1988
IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4
IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5
IS 4031 Part 3, Determination of Soundness, Clause 5, Clause 6
IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5
IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5
IS 4031 Part 11, DETERMINATION OF DENSITY , Clause 6

Date of test : 20-03-2018

Environmental Conditions during test : Temperature: 26°C
Humidity: 72%

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	1.75	—
2	Fineness by Air permeability method (m ² /kg, Min)	282.7	225m ² /kg, Min
3	Density (gm/cc)	3.12	—
4	Standard Consistency (%)	29.0%	Not specified
5	Initial Setting time	155 minutes	Not less than 30 minutes
6	Final Setting time	265 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1.0mm	Not more than 10 mm

Note:

The results pertain to the samples received and tested.

All information furnished by Customer/Representative

Any correction to the report will make this report invalid

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Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL PRO.

R. Karthik Rechan

R KARTHIK RECHAN
Authorized Signatory
Quality Manager



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****End of Report****

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TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID : CP-2018-03-19-04 Date: 17-04-2018
Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address : Shettyhalli Sub Division, BBMP, Bangalore.
Project Name : Construction of RCC drain in 19th, 12th Cross roads at Ravindra Nagara in Ward No.13, Shettyhalli Sub Division.
Agency : Smt.Jayamma.K No.74, Behind Grama Panchayiti office, Shanbhog Layout, Dasanapura, Bangalore-562123.
Customer's Reference : EE/DD/WO/293/17-18
Source of Sample : Sample supplied by Agency
Sample Condition : Satisfactory
Date of Receipt : 19-03-2018
Sample ID No : 2018-03-19-04 /01
Sample Type : Birla Super 53grade
Reference to BIS codes : IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification ,
IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5
IS 4031 Part 6, Determination of Compressive Strength, Clause 6
Date of test : 20-03-2018

Environmental Conditions during test : Temperature: 26°C
Humidity: 72%

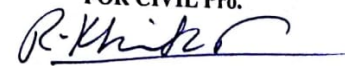
Compressive Strength

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	3 Days	29.5N/mm ²	Not less than 27 N/mm ²
2	7 Days	39.0N/mm ²	Not less than 37 N/mm ²
3	28 Days	55.5N/mm ²	Not less than 53 N/mm ²

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Quality Manager



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TEST REPORT ON COARSE AGGREGATES

Lab ID : CP-2018-03-19-04 **Date:** 22-03-2018
Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address : Shettyhalli Sub Division, BBMP, Bangalore.
Project Name : Construction of RCC drain in 19th, 12th Cross roads at Ravindra Nagara in Ward No.13, Shettyhalli Sub Division.
Agency : Smt.Jayamma.K No.74, Behind Grama Panchayiti office, Shanbhog Layout, Dasanapura, Bangalore-562123.
Customer's Reference : EE/DD/WO/293/17-18
Source of Sample : Sample supplied by Agency
Sample condition : Satisfactory
Date of Receipt : 19-03-2018
Sample ID No : 2018-03-19-04 /02(a)
Sample Type : 40mm down size coarse aggregate
Reference to BIS codes : IS: 383:2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1,3,4) RA2011
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids, Water Absorption
IS 2386 Part 4: Mechanical Properties
Date of test : 19-03-2018

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 40MM DOWN COARSE AGGREGATE:

Total weight taken : 15000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
	80 mm	0	0	0.0	100	100
	40 mm	292	292	1.9	98.1	90-100
3	20 mm	7498	7790	51.9	48.1	30-70
4	10 mm	5455	13245	88.3	11.7	10-35
5	4.75 mm	1218	14463	96.4	3.6	0-5
6	Pan	537	15000	100.0	0	—

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TEST REPORT ON COARSE AGGREGATES

ID : CP-2018-03-19-04 Date: 22-03-2018
Sample ID No : 2018-03-19-04 /02(a)

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	8.2	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	9.3	
3	Specific Gravity	2.61	—
4	Bulk Density(Loose) (Kg/l)	1.43	—
5	Bulk Density(Compacted) (Kg/l)	1.48	—
6	Water Absorption(%)	0.18	—

Note:

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ಯುಪಾಲಿಕೆ ಅಭಿಯಂತರರು
ಪರಿಶೀಲಿಸಿ, ದಾಖಲೆಗಳನ್ನು ಪರಿಶೀಲಿಸಿ
ಮಾಹಿತಿಗಾಗಿ ಮಹಾನಗರ ಪಾಲಿಕೆ
ಇ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು



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R. Karthik
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

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TEST REPORT ON COARSE AGGREGATES

Lab ID : CP-2018-03-19-04 Date: 22-03-2018
Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address : Shettyhalli Sub Division, BBMP, Bangalore.
Project Name : Construction of RCC drain in 19th, 12th Cross roads at Ravindra Nagara in Ward No.13, Shettyhalli Sub Division.
Agency : Smt.Jayamma.K No.74, Behind Grama Panchayiti office, Shanbhog Layout, Dasanapura, Bangalore-562123.
Customer Reference : EE/DD/WO/293/17-18
Source of Sample : Sample supplied by Agency
Sample Condition : Satisfactory
Date of Receipt : 19-03-2018
Sample ID No : 2018-03-19-04 /02(b)
Sample Type/ Size : 20mm down size coarse aggregate
Reference to BIS codes : IS: 383:2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1,3,4) RA2011
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids, Water Absorption
IS 2386 Part 4: Mechanical Properties
Date of test : 19-03-2018

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:

Total weight taken : 5000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	40 mm	0	0	0	100	100
2	20 mm	285	285	5.7	94.3	90-100
3	10 mm	3015	3300	66.0	34.0	25-55
4	4.75 mm	1588	4888	97.8	2.2	0-10
5	Pan	112	5000	100	0	-

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TEST REPORT ON COARSE AGGREGATES

Lab ID : CP-2018-03-19-04
Sample ID No : 2018-03-19-04 /02(b)

Date: 22-03-2018

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	10.1	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	9.5	
3	Specific Gravity	2.63	—
4	Bulk Density(Loose) (Kg/l)	1.45	—
5	Bulk Density(Compacted) (Kg/l)	1.51	—
6	Water Absorption(%)	0.21	—
7	Aggregate crushing Value(%)	23.8	Max 30% for Aggregates to be used in concrete for wearing Surface, In case Aggregate Crushing Value Exceeds 30% then the test for ten percent fines should be conducted for Aggregates to be used in concrete other than for wearing Surface.
8	Aggregate Impact Value(%)	23.1	30% for Aggregates to be used in concrete for wearing Surface, 45% for Aggregates to be used in concrete other than for wearing Surface.

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ಹಾಯಕ ಕಾರ್ಯದ ಮೇಲೆ ಬಳಸಲು ಸೂಕ್ತವಲ್ಲ.
ಶಿಫ್ಟು ಉಪಯೋಗ, ದಾರುಣತೆ, ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಂಚಾಯತ್, ಬೆಂಗಳೂರು.
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು.

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R KARTHIK RECHAN
Authorized Signature
Quality Manager



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End of Report

Format No: CP/TF/01

TEST REPORT OF FINE AGGREGATE

CP-2018-03-19-04 Date: 22-03-2018

Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.

Shettyhalli Sub Division, BBMP, Bangalore.

Construction of RCC drain in 19th, 12th Cross roads at Ravindra Nagara in Ward No.13, Shettyhalli Sub Division.

Smt.Jayamma.K No.74, Behind Grama Panchayiti office, Shanbhog Layout, Dasanapura, Bangalore-562123.

EE/DD/WO/293/17-18

Sample supplied by Agency

Satisfactory

19-03-2018

2018-03-19-04 /03

Fine Aggregate

IS 383 : 2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1, 3) RA2012
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids, Water Absorption

19-03-2018

no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	31	31	3.1	96.9	90-100	90-100	90-100	95-100
3	2.36 mm	182	213	21.3	78.7	60-95	75-100	85-100	95-100
4	1.18 mm	158	371	37.1	62.9	30-70	55-90	75-100	90-100
5	600 micron	201	572	57.2	42.8	15-34	35-59	60-79	80-100
6	300 micron	211	783	78.3	21.7	5-20	8-30	12-40	15-50
7	150 micron	148	931	93.1	6.9	0-10	0-10	0-10	0-15
8	Pan	69	1000	100.0	0.0	---	---	---	---

Result : The tested Sample Conforms to Grading Zone II

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